

REMARKS

The Advisory Action mailed September 19, 2005 has been received and reviewed. The present amendment is submitted in conjunction with a Request for Continued Examination. Claims 1-12 are currently pending in the application. Claims 1-12 stand rejected. Claim 1 has been amended without prejudice or disclaimer to recite the presence of a hydrophobic agent in each element of the Markush group. Applicant respectfully requests reconsideration of the application as amended herein.

Supplemental Information Disclosure Statement

Applicants note the filing of a Supplemental Information Disclosure Statement herein on August 3, 2005. Applicants further note that the Examiner did not consider all of the references submitted. Applicants respectfully note that they are required, by 37 C.F.R. § 1.56, to disclose to the Office all information known to be material to patentability. Further, “[m]ateriality is not limited to prior art but embraces any information that a reasonable examiner would be substantially likely to consider important in deciding whether to allow an application to issue as a patent.” *Bristol-Myers Squibb Co. v. Rhone-Poulenc Rorer, Inc.*, 326 F.3d 1226, 1234, 66 USPQ2d 1482, 1486 (Fed. Cir. 2003) (emphasis in original). Applicants respectfully submit that they have provided the information submitted in the IDS in attempt to fulfill their duty under 37 C.F.R. § 1.56. Further, applicants have no way of knowing exactly what information a reasonable examiner may use in evaluating a particular aspect of the application. The information was provided in an attempt to be as thorough as possible and to give the Examiner all information which the Examiner might reasonably rely on in evaluating the application. Applicants respectfully understand the burden place on the Examiner by the review of all such material, but feel the need to submit the information in fulfillment of their duty under 37 C.F.R. §1.56. As such, applicants respectfully request that the information cited on the PTO/SB/08A forms be made of record herein. For the Examiner’s convenience, new PTO/SB/08A forms have been provided for the art not yet reviewed by the Examiner and made of record. Should the Re-Submitted Information Disclosure Statement or any associated documents not be available to the Examiner, the Examiner is respectfully requested to contact the Applicants’ undersigned

attorney, who will have the papers submitted promptly.

35 U.S.C. § 112 Claim Rejections

Claims 1 through 3 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains to make and/or use the invention. Applicants respectfully submit, that in light of the amendment to claim 1, that the present rejection has been overcome.

The Examiner alleged, at page 3 of the Office Action mailed July 8, 2005, that “[t]he arguments about the HIV infected cells being the only cells that would express HIV protease are true but still do not explain how a compound represented by the formulas N-X-A and A-X-N can target the cells that are infected such that the protease has the opportunity to cleave X.”

Applicants respectfully note that element (i) of the Markush group of claim 1 recites “. . . B is a lectin or a segment thereof” Applicants further note that element (ii) of the Markush group of claim 1 has been amended herein to recite “a compound having a hydrophobic agent” As is well known in the art, and indicated at ¶ 35 of the specification, lectins are proteins that bind carbohydrates. As is further well known in the art, lectins that bind to carbohydrates on the cellular surface are taken into a cell via clathrin coated pits or through nonspecific endocytosis. Such use of lectins for cellular uptake is disclosed at ¶ 47 of the specification. Furthermore, the use of a hydrophobic agent, as described at ¶ 66 of the specification and as is well known in the art, makes it easier for molecules to enter cells *in vivo*.

Thus, applicants respectfully submit that the use of either a lectin or a hydrophobic moiety will allow the recited compounds of claim 1 to enter cells. As noted in the specification at ¶ 49, the binding of a lectin to a carbohydrate (such as Ricin B binding mannose residues) may target binding to specific cell types. Such binding to cell will allow internalization of the compound attached to such a lectin. Such targeting may be made specific depending on the specific carbohydrate to which a particular lectin binds and the specific kinds of carbohydrates on the surface of a given cell type. Further, the hydrophobic agents, presented in ¶ 15 of the specification and the action of which is described in part in ¶ 49 of the specification, will permit internalization into a variety of cells.

After the recited compounds have entered a cell, they remain inactive until cleaved by a protease, such as the HIV protease. In this manner, only cells that produce the required protease will be targeted for destruction. In sum, the use of a lectin or a hydrophobic moiety will allow the compounds of the invention to enter into cells. Thereafter, the compounds will remain dormant until cleaved by a specific protease, allowing for the targeted destruction of cells producing that specific protease. As such, applicants respectfully submit that it is clear how compounds represented by the formulas N-X-A and A-X-N can target for destruction cells that are infected and express the protease that cleaves X.

35 U.S.C. § 102(b) Anticipation Rejections

Claims 1-12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Borgford (WO 97/41233). Applicants respectfully traverse this rejection, as hereinafter set forth.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

In order to expedite prosecution, the applicants have amended independent claim 1 to recite the presence of a hydrophobic agent in the compound described by the formula N-X-A or A-X-N. Claim 1, as amended, recites the presence of a hydrophobic agent in all aspects of the Markush group. Thus, as Borgford does not describe all of the elements of claim 1 as proposed to be amended, Borgford does not anticipate the claim.

Claims 2 through 12 are allowable as depending from claim 1.

Reconsideration and withdrawal of the rejection of claims 1 through 12 are respectfully requested.

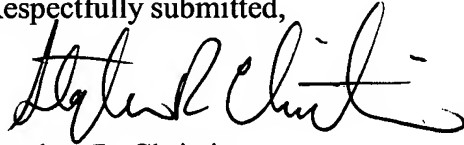
ENTRY OF AMENDMENTS

The amendments to claim 1 above should be entered by the Examiner as the amendments are filed in conjunction with a Request for Continued Examination and are supported by the as-filed specification and drawings and do not add any new matter to the application.

CONCLUSION

Claims 1-12 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, the Examiner is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



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Date: 7 Oct 2005